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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/800,672	03/16/2004	Shinichi Kondo	Q80286	3007
23373 7590 03/08/2007 SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			EXAMINER ASINOVSKY, OLGA	
			ART UNIT	PAPER NUMBER
			1711	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		03/08/2007	PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

10/800,672

Applicant(s)

KONDO ET AL.

Examiner

Olga Asinovsky

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on telephone request 12/18/2006 and 12/20/20.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**1. Response to Arguments**

Per telephone request by the attorney Jennifer Leach on December 18, 2006 about obviousness-type double patenting rejection, the present application 10/800,672 is withdrawn from issue pursuant to 37 CFR 1.313. Withdrawal of Notice of Allowance mailed on December 20, 2006.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

3. (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Pub. No.:US 2002/0161131 A1.

The present claims 1-5 discloses a process for producing a modified polyethylene resin by melt kneading condition in the presence of a compound having unsaturated carboxylic acid or a derivative thereof and an organic peroxide.

Reference Pub. No. 2002/0161131 discloses the analogous process condition for producing an acid modified polypropylene resin. The "polypropylene resin" can include a polymerized propylene unit and an alpha-olefin having 4 to 12 carbon atoms, and/or another segment of a propylene/ethylene random copolymer [0021]. Propylene resin and polyethylene resin belong to the same type of polyolefin resin. The claimed process conditions are similar to the process for making acid modified polypropylene resin in

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Pub. No.: US2002/0161131 A1. The claimed process for producing polyethylene resin is fully anticipated by the process condition in the disclosure in US 2002/0161131 A1.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Motooka et al U.S. Patent 4,616,059.

7. The claimed invention is a process for producing a modified polyethylene resin by melt kneading of a polyethylene resin (A), at least one modifier (B) that can be (B1) and/or (B2) specified in the present claim 1, and an organic peroxide (C) having a decomposition temperature of from 50 to 115 C, at which temperature a half-life thereof is 1 minute.

Motooka discloses graft-modified polyethylene (A) with an unsaturated carboxylic acid (C) under melt-kneading condition in the presence of (B) an aliphatic compound such as paraffinic wax, col. 2, lines 46-54; col. 4, lines 7-14. The graft-modification is carried out in the presence of organic peroxides, col. 8, lines 49-65. Organic peroxides are readable for being claimed (C) organic peroxide. The claimed specified organic peroxide such as dicetyl peroxydicarbonate in the present claim 3 is readable for being an organic peroxide having a decompositional temperature in the broad range of from

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50 to 115 C and said organic peroxide is working within the same expectation for obtaining the adequate result. The ultrahigh molecular weight polyethylene (A) is readable for being claimed polyethylene resin (A) because any polyethylene is readable in the present claims. An unsaturated carboxylic acid, col. 6, lines 36-51, is readable for being claimed compound (B1).

The difference between the claimed invention and Motooka invention is that Motooka discloses an addition of paraffinic wax. The variety of waxes can include polyethylene waxes and oxidized waxes or alpha, beta-unsaturated acid-modified waxes such as the oxidation products or maleinized products of the above-exemplified waxes, col. 6, lines 2-15. Also, the compound (B) can include an aliphatic compound having functional group, col. 6, lines 19-26. The paraffinic waxes having at least two functional groups in Motooka invention can be considered as claimed (B2) compound. Any additional component(s) in Motooka invention can be expected in the claimed modified polyethylene resin. The method for producing the modified polyethylene resin in the present claims is readable in Motooka invention.

It would have been obvious to one of ordinary skill in the art to use a method of graft-modification of ultrahigh-molecular weight polyethylene (UHMW) in Motooka invention and to consider that said UHMW polyethylene is within the scope of claimed polyethylene resin, and the addition paraffinic wax can be present as addition component B2, because the present compound (B) can include both (B1) and (B2) compounds, and thereby obtain the claimed requirement.

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In light of the new applied reference, this action is not final.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Olga Asinovsky whose telephone number is 571-272-1066. The examiner can normally be reached on 9:00 to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Olga Asinovsky  
Examiner  
Art Unit 1711

March 05, 2007



James J. Seidleck  
Supervisory Patent Examiner  
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